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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,697

03/13/2007

Dingyi Hong

U 016220-0

7117

140 7590 07/01/2008
LADAS & PARRY LLP
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER

GALE, KELLETTE

ART UNIT

PAPER NUMBER

1621

MAIL DATE

DELIVERY MODE

07/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,697	Applicant(s) HONG ET AL.	
	Examiner KELLETTE GALE	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/13/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al (US 5,087,767) in view of JP 54-019951.

Applicant claims a method for preparing bisphenol A, comprising the steps of transferring phenol and acetone into a reaction zone charged with a condensation catalyst, transferring the obtained stream containing bisphenol A into a rectification zone, transferring the product fraction primarily containing bisphenol A and phenol into a crystallization zone to obtain a bisphenol A product, characterized in that a water depleted fraction primarily containing phenol, bisphenol A and acetone is obtained from the rectification zone and said water depleted fraction is cooled and returned as a cycled stream to the reaction zone.

Determination of the scope and content of the prior art

(MPEP §2141.01)

Okamoto et al teaches a method for preparing bisphenol A comprising reacting acetone and phenol in the presence of a catalyst wherein the reaction of acetone and phenol is performed while removing a part of the water generated during the reaction from the mixed solution containing acetone and phenol by a pervaporation method. Therefore the water is separated out (see abstract). Also, it is said that according to the method of this invention, bisphenol A produced can be recovered by a known method such as removal of phenol by evaporation or crystallization (col 7, lines 11-15).

JP 36-23334 and JP 54-19951 teach in this same patent of Okamoto et al that water containing other fractions can be recycled back into the reaction system (please see col. 2, lines 53-60 and col. 3, lines 5-10).

Ascertainment of the difference between the prior art and the claims

(MPEP §2141.02)

The difference between the prior art and the claims is that Okamoto et al does not teach the recycling of water and other fractions back into the reaction system. However, this is taught by JP 36-23334 and JP 54-19951.

Finding of prima facie obviousness

Rational and Motivation (MPEP §2142-2143)

As taught by JP 36-23334 and JP 19951, it is obvious and very well known in the art to recycle water and other fractions of the reaction mixture back into the reaction system. One having ordinary skill in the art would find it obvious to do so as Okamoto

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et al shows that this is well known in the art by citing the two Japanese patents. One having ordinary skill in the art at the time of the instant invention would be motivated to do so as it is said that this increases the concentration of bisphenol A in the flow of the reaction product (please see col. 3, lines 3 and 4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLETTE GALE whose telephone number is (571)272-8038. The examiner can normally be reached on M-F (6:30am-3:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, YVONNE EYLER can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Kellette Gale
Patent Examiner
Technology Center 1600

June 16, 2008

/SHAIENDRA - KUMAR/
Primary Examiner, Art Unit 1621